

CLAIMS

1. Monopropellant composition for propulsion and/or gas generation, comprising a solution of hydrazinium nitroformate (HNF) and/or ammonium dinitramide (ADN) in water and/or an alkanol.
- 5 2. Monopropellant composition according to claim 1, wherein the amount of HNF and/or ADN is from 25 to 95 wt.% of the composition.
3. Monopropellant composition according to claim 1 or 2, comprising water and an amount of a solvent, preferably a  
10 lower (C1 to C4) alkanol.
4. Monopropellant composition according to claim 3, wherein the alkanol is methanol and/or ethanol.
5. Monopropellant composition according to claim 3 or 4, wherein the amount of alkanol is between 5 and 70 wt.%.
- 15 6. Monopropellant composition according to claim 1-5, consisting of 25 to 75 wt.% of hydrazinium nitroformate, 5 to 50 wt.% of water and 0 to 25 wt.% of lower alkanol.
7. Monopropellant composition according to claim 1-6, further comprising solubilisers, vapour pressure decreasing  
20 agents and/or performance improving agents.
8. Use of a composition of hydrazinium nitroformate and/or ammonium dinitramide according to claim 1-7 as propellant in spacecraft propulsion.
9. Use of a composition of hydrazinium nitroformate and/or  
25 ammonium dinitramide according to claim 1-7 as emergency propellant in jet fighters.
10. Use of a composition of hydrazine nitroformate and/or ammonium dinitramide according to claim 1-9 in an emergency gas generation system for submarines.

11. Process for orienting and positioning of spacecraft after delivery into the normal orbit by a launch vehicle by the use of spacecraft propulsion system based on monopropellant thrusters, wherein the monopropellant according to claim 1-7 is used for propulsion.
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